

## CLAIMS

1-40.

(CANCELLED)

41. /

(NEW) A system for generating user defined timeshared derivative catalogs from

a master catalog, comprising:

a dynamic partitioning module configured to obtain user profile information and retrieve a user defined first view via a masking module configured to provide said user defined first view to a first user by performing a bitwise AND operation between a first bit vector index and a second bit vector index to select a first view data record set from a plurality of data records in a master data set and by performing a bitwise AND operation between a third bit vector index and a fourth bit vector index to yield a first view data element set comprising a first view data record set having said first view data element set;

said first bit vector index defining a first set of available data records in said master data set comprising a first single bit corresponding to a first available data record in said plurality of data records in said master data set;

said second bit vector index defining a second set of available data records in said master data set comprising a second single bit corresponding to a second available data record in said plurality of data records in said master data set;

said third bit vector index defining a first set of available data elements in said master data set comprising a third single bit corresponding to a first available data element in said plurality of data records in said master data set; and

said fourth bit vector index defining a second set of available data elements in said master data set comprising a fourth single bit corresponding to a second available data element in said plurality of data records in said master data set.

<sup>2</sup>  
~~42.~~ (NEW) The system of claim <sup>1</sup>~~41~~ further comprising:

a fifth bit vector index defining a third set of available data records in said master data set comprising a fifth single bit corresponding to a third available data record in said plurality of data records in said master data set;

<sup>B2</sup>  
a sixth bit vector index defining a third set of available data elements in said master data set comprising a sixth single bit corresponding to a third available data element in said plurality of data records in said master data set; and,

wherein said masking module is further configured to provide a second view to a second user by performing a bitwise AND operation between said first bit vector index and said fifth bit vector index to select a second view data record set from said plurality of data records in said master data set and by performing a bitwise AND operation between said third bit vector index and said sixth bit vector index to yield a second view data element set wherein said second view comprises said second view data record set having said second view data element set.

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~~43.~~ (NEW) The system of claim <sup>2</sup>~~42~~ wherein said masking module is further configured to prevent said first user from accessing said second view of said second user.

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44. (NEW) The system of claim 41 wherein said dynamic partition module is configured to identify said first available data records in said master data set by extracting said first single bit.

45. (NEW) The system of claim 41 wherein said dynamic partition module is configured to access one bit per master data record.

46. (NEW) The system of claim 41 wherein said first bit vector index is encoded.

47. (NEW) The system of claim 41 wherein said system is configured to perform interactive browsing by obtaining a bit vector resulting from bitwise ORs and ANDs when said user defined first view is accessed without using a temporary file of query results.

48. (NEW) The system of claim 41 wherein said system is configured to reduce repeated overhead by storing intermediate resulting bit vectors for application of additional constraints during an iterative query.

49. (NEW) The system of claim 41 further configured to perform a fast multiple constraint query on a single lookup field in said user defined first view, said system configured to:

generate a result query bit vector by performing a bitwise OR between each of a plurality of values constraining a first lookup field;

return a corresponding result data record from said user defined first view for each logical ONE in said result query bit vector.

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~~50.~~ (NEW) The system of claim ~~41~~<sup>1</sup> further configured to perform a fast multiple constraint query on multiple lookup fields in said user defined first view, said system configured to:

generate a first result query bit vector by performing a bitwise OR between each of a first plurality of values constraining a first lookup field;

generate a second result query bit vector by performing a bitwise OR between each of a second plurality of values constraining a second lookup field;

generate a multiple constraint result query bit vector by performing a bitwise AND between said first result query bit vector and said second result query bit vector; and

return a corresponding result data record for each logical ONE in said multiple constraint result query bit vector.

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~~51.~~ (NEW) The system of claim ~~41~~<sup>1</sup> comprising a feature masking module is configured to allow said first user to execute a first executable feature.

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~~52.~~ (NEW) The system of claim ~~51~~<sup>11</sup> wherein said feature masking module is further configured to allow said second user to execute a second executable feature.

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~~53.~~ (NEW) The system of claim ~~51~~<sup>11</sup> wherein said feature masking module is further configured to prevent said first user from executing said second executable feature.

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~~54.~~ (NEW) In a computer system, a method for generating custom catalogs from a master catalog comprising:

defining a master data set comprising a plurality of data records;

configuring a first bit vector index to define a first set of available data records in said master data set;

configuring a second bit vector index to define a second set of available data records in said master data set;

configuring a third bit vector index to define a first set of available data elements in said master data set;

configuring a fourth bit vector index defining a second set of available data elements in said master data set; and,

performing a bitwise AND operation between said first bit vector index and said second bit vector index to select a first view data record set from said plurality of data records in said master data set;

performing a bitwise AND operation between said third bit vector index and said fourth bit vector index to yield a first view data element set; and,

providing a first view to a first user comprising said first view data record set having said first view data element set.

55. (NEW) The system of claim 54 further comprising:

configuring a fifth bit vector index to define a third set of available data records in said master data set;

configuring a sixth bit vector index defining a third set of available data elements in said master data set; and,

performing a bitwise AND operation between said first bit vector index and said fifth bit vector index to select a second view data record set from said plurality of data records in said master data set;

performing a bitwise AND operation between said third bit vector index and said sixth bit vector index to yield a second view data element set; and,

providing a second view to a second user comprising said second view data record set having said second view data element set.

EX  
AND  
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56. (NEW) The system of claim <sup>14</sup>~~55~~ further comprising:

preventing said first user from accessing said second view of said second user.

EX  
AND  
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57. (NEW) The system of claim <sup>14</sup>~~56~~ further comprising:

allowing a first user to execute a first executable feature.

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58. (NEW) The system of claim <sup>15</sup>~~57~~ further comprising:

allowing said second user to execute a second executable feature.

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59. (NEW) The system of claim <sup>16</sup>~~58~~ further comprising:

preventing said first user from executing said second executable feature.

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60. (NEW) In a computer system, a method for generating user defined timeshared custom catalogs from a master catalog comprising:

defining a master data set comprising a plurality of data records;

configuring a first bit vector index to define a first set of available data records in said master data set;

configuring a second bit vector index to define a second set of available data records in said master data set;

configuring a third bit vector index to define a first set of available data elements in said master data set;

configuring a fourth bit vector index defining a second set of available data elements in said master data set; and,

performing a bitwise AND operation between said first bit vector index and said second bit vector index to select a first view data record set from said plurality of data records in said master data set;

performing a bitwise AND operation between said third bit vector index and said fourth bit vector index to yield a first view data element set;

providing a first view to a first user comprising said first view data record set having said first view data element set;

generating a first result query bit vector by performing a bitwise OR between each of a first plurality of values constraining a first lookup field;

generating a second result query bit vector by performing a bitwise OR between each of a second plurality of values constraining a second lookup field;

generating a multiple constraint result query bit vector by performing a bitwise AND between said first result query bit vector and said second result query bit vector; and

returning a corresponding result data record for each logical ONE in said multiple constraint result query bit vector.